REMARKS

With the entry of the present Amendment, Claims 27-51 and 55-63 are in this application. Claims 52-54 have been canceled without prejudice and replaced with new claims 69-70 and new claim 71 is presented. None of the amendments made herein constitutes the addition of new matter.

The Requirement for Restriction

The Examiner has identified eight allegedly distinct inventions, and she has required an election of a single invention to which the claims must be restricted, pursuant to 35 U.S.C. 121. Groups 1-8 are defined below:

> Group I, claims 27-43, drawn to a nucleic acid encoding a protein that is variant of SEQ ID NO:2 that has resistance to a PI, and vectors and cells comprising it.
>
> Group II, claim 44, drawn to a method comprising contacting a nucleic acid encoding a protein that is variant of SEQ ID NO:2 that has resistance to PI with an agent.
>
> Group III, claims 45-51, drawn to a protein that is variant of SEQ ID NO:2 that has resistance to PI.
>
> Group IV, claims 52-54, drawn to an antagonist [sic] of a protein that is variant of SEQ ID NO:2 that has resistance to a PI.
>
> Group V, claims 55-62, drawn to plants and seeds producing an agonist of a protein that is variant of SEQ ID NO:2 that has resistance to a PI.
>
> Group VI, claim 63, drawn to a method comprising contacting a protein that is variant of SEQ ID NO:2 that has resistance to a PI with an agent.
>
> Group VII, claims 64-65, drawn to an antibody that binds to a chymotrypsin or variant thereof.
>
> Group VIII, claims 67-68, drawn to a polynucleotide that is antisense to a nucleic acid encoding a protein with 75% similarity to SEQ ID NO:2.

The Examiner has alleged that the claims define eight separate and distinct inventions. Applicants respectfully note that each of these allegedly distinct inventions relate to variants of SEQ ID NO:2 and that, pursuant to a telephone conference with the Examiner on March 24, 2008, SEQ ID NO:2 is considered to fall within "variants of SEQ ID NO:2". Applicants appreciate the Examiner's clarification of this point.

The Examiner's allegation that the presently claimed subject matter relates to more than one invention appears to be based on the Examiner's understanding that the technical feature linking "inventions" I to VIII is not novel in the light of Mazumdar-Leighton *et al* 2001. However, Applicants respectfully submit that none of the specifically exemplified sequences of the present application are believed to be found in the cited reference, and thus, SEQ ID NO:2 (HpCh5) and variants thereof should be deemed novel over this document. Specifically, the table below shows the percentage sequence identity between the HpCh5 molecule (SEQ ID NO:2) of the present invention and the six chymotrypsins disclosed by Mazumdar-Leighton *et al* 2001. The definition of "variants" at page 9, lines 1 to 2 of the specification, which states that a variant of the HpCh5 molecule has at least 75% sequence identity to SEQ ID NO:2.

Organism	**Accession No.**	**Name**	**% Identity with HpCh5**
Helicoverpa zea	AF233731_1	HzC4	71%
Agrotis ipsilon	AF233729_1	AiC5	71%
Helicoverpa zea	AF233732_1	HzC20	68%
Agrotis ipsilon	AF233730_1	AiC6	61%
Helicoverpa zea	AF233733_1	HzC21	61%

Agrotis ipsilon	AF233728_1	AiC2	59%

In addition, as disclosed at paragraphs [0092] and [0100] to [0103] in the present published specification, the structural basis of the NaPI insensitivity of HpCh5 involves the arginine residue at position 192 (ie within the primary substrate binding pocket). In contrast, it is a glutamine residue in the *H. punctigera* chymotrypsins, which are sensitive to NaPI. The chymotrypsins disclosed in Mazumdar-Leighton *et al* also have the conventional glutamine residue (except for AiC2, which has a serine). The alignment included herein shows the unique Arg of HpCh5 at residue 225. The structural basis for inhibitor sensitivity was not known in 2001 (see Mazumdar-Leighton *et al*, p641, left column para 1).

Applicants elect the claims of Group IV, antagonists. As-filed claims 52-54 have been canceled without prejudice and replaced with new claims 69-70.

Applicants respectfully urge that the claims of Group VII (antibodies) be grouped with the claims of Group IV (antagonists). Antibodies that bind to a chymotrypsin could be antagonists of a protein of SEQ ID NO:2 or a variant thereof. Applicants also respectfully urge that the claims of Group V, drawn to seeds and plants producing an antagonist [sic] of a protein of SEQ ID NO:2 or a variant of same, should be grouped with those of Group IV.

In the interest of advancing prosecution and in the event that the Examiner does not accept either of the above arguments regarding the unity of the present claims, Applicants elect the claims of Invention IV, claims 52 to 54, replaced with new claims 69-70 drawn to an **antagonist** (recitation of "agonist" in the Restriction Requirement is clearly in error) of a protein having an amino acid

sequence selected from the group consisting of SEQ ID NO:2 or a variant thereof, wherein said protein exhibits resistance to a PI from *N. alata*. Simultaneous examination of claim 71, a composition comprising the antagonist of claim 69 is respectfully requested.

Conclusion

This Response is accompanied by a Petition for Extension of Time (two months) and payment of the fee of $230.00 as required by 37 C.F.R. 1.17(a). It is believed that no additional fee is required and no further petition for extension of time is required for the present response to the requirement for restriction. If this is incorrect, please consider this paper to include a petition for extension of time for any additional time needed for the timely filing of this response and charge amount due for the filing of this response under the 37 C.F.R. 1.16-17 to Deposit Account No. 07-1969.

Respectfully submitted,

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